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10/825,817	04/16/2004	Robert W. Roldan	2003P14527US	8690

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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
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EXAMINER

SHECHTMAN, SEAN P

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,817

Applicant(s)

ROLDAN, ROBERT W.

Examiner

Sean P. Shechtman

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claim 1-26 are presented for examination.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the gravity racks positioned so as to not rely on gravity as described in the specification (See page 4, paragraph 19). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "16" has been used to designate both manufacturing pieces and kanbans (See page 4 paragraph 19-20 of the instant specification).

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of kanbans each having a plurality of manufacturing pieces (claim 2), sensing with a mechanical switch (claim 4), sending an e-mail to a supplier of the manufacturing pieces in response to sensing a removal of the manufacturing pieces without user activation of the sending (claim 5), automatically sending an order for more manufacturing pieces (claim 6), sending a copy of the order to at least one of a purchaser, a manufacturing supervisor, and a warehouse person (claim 6), sensing the lack of replacement of the manufacturing pieces after a time period (claim 7), electronically notifying a supplier or manufacturing supervisor (claim 8), a spring activated mechanical switch (claim 14), a first and second type of manufacturing pieces (claim 17), the first and second type of manufacturing pieces on a designated first and second respective rack (claim 17), electronically communicating a first order for the first type of manufacturing pieces where the removal of the

Art Unit: 2125

first type of manufacturing pieces is sensed, independently from electronically communicating a second order for the second type of manufacturing pieces where the removal of the second type of manufacturing pieces is sensed (claim 17), sending first and second emails in electronic communication of the first and second orders respectively, without user activation of the sending (claim 18), must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2125

Claims 2, 15, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “kanban” in claim 2 is used by the claim to mean “a box or other container” (See page 4, paragraphs 19-20 of the instant specification), while the accepted meaning is “a card or sheet or label that controls the itinerary of a container or box in the production process.” The term is indefinite because the specification does not clearly redefine the term.

6. Claims 15 and 16 require limitations wherein the processor is operable to perform a function, however, claim 11, from which claims 15 and 16 depend, requires the limitations of “a processor” and “another processor”. Therefore, it is not clear which processor is the processor.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 11, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicants Admitted Prior Art (hereinafter referred to as AAPA).

Art Unit: 2125

Referring to claims 1, 11, and 20, AAPA teaches a method for automated replenishment notification for manufacturing pieces (Page 1, paragraph 5), the method comprising:

(a) positioning manufacturing pieces on a gravity feed rack, wherein said rack is in a horizontal position or other position not relying on gravity for the movement of pieces (Page 1, paragraph 2);

(b) sensing a removal of the manufacturing pieces (Page 1, paragraph 5); and

(c) a processor electronically notifying in response to (b) (Page 1, paragraph 5, the examiner respectfully submits that a processor facilitating the restocking of items in response to a sensor determined level of inventory items presence fallen below a predetermined level is electronic notification in response to sensing of a removal of manufacturing pieces).

Applicant teaches that the “racks 12 are gravity fed racks”, wherein “the racks 12 are in a horizontal position or other position not relying on gravity for the movement of pieces” (See page 4, paragraph 19). The examiner respectfully submits that, regardless of what applicant may call the racks (i.e., gravity feed racks), the claims as such do not require that the racks rely on gravity for the movement of pieces, nor do the claims require that the rack even be in a position to rely on gravity for the movement of pieces. In fact, the claims, as such do not even require movement of pieces at all, much less movement of pieces on a rack or gravity feed rack.

The recitation “automated replenishment notification for manufacturing pieces” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

Art Unit: 2125

See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). The examiner respectfully submits that the claims, as such, do not require that any of the method steps in the body of the claims be performed automatically. Furthermore, the claims, as such do not even require that the notification in step (c), be a replenishment notification for manufacturing pieces.

The examiner respectfully submits that the sensed removal of the manufacturing pieces is not required to be a sensed removal of the manufacturing pieces from the gravity feed rack. The claims, as such, do not require that the pieces be part of a tool or a product used in manufacturing. In fact, the claims, as such, do not require manufacturing anything at all.

Referring to claim 2, AAPA teaches the method of Claim 1 wherein (a) comprises positioning a plurality of kanbans each having a plurality of manufacturing pieces and wherein (b) comprises sensing removal of a kanban (Page 1, paragraph 2).

8. Claims 1, 4, 7-11, 13, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,998,206 to Jones.

Referring to claims 1 and 11, Jones teaches a system and method for automated replenishment notification for manufacturing pieces, the system and method comprising:

(a) a plurality of gravity feed racks (Col. 36, lines 43-44);

(b) a sensor adjacent to the gravity feed rack, the sensor positioned to sense a presence of a manufacturing piece on the gravity feed rack (Col. 36, lines 54-56); and

(c) a processor connected with the sensor, the processor operable to generate a notification in response to a signal from the sensor indicating a lack of the manufacturing piece and operable to communicate the notification to another processor (Col. 36, lines 59-61).

Referring to claim 4, Jones teaches the method of Claim 1 wherein (b) comprises sensing with a mechanical switch (Col. 36, lines 43-56, switch actuated by sliding).

Referring to claims 7 and 21, Jones teaches the method of Claim 1 further comprising: (d) sensing a lack of replacement of the manufacturing pieces after a time period from *one of* (b) and (c) (Col. 36, lines 56-59); and (e) electronically notifying in response to (d) (Col. 36, lines 59-61).

Referring to claim 8, Jones teaches the method of Claim 7 wherein (e) comprises electronically notifying *at least one of*: a supplier and a manufacturing supervisor (Col. 36, lines 66-68).

Referring to claims 9 and 24, Jones teaches the method of Claim 1 wherein (c) is performed in response to (b) after sensing a lack of a replacement manufacturing piece within a time period (Col. 36, lines 56-59).

Referring to claim 10, Jones teaches the method of Claim 1 wherein (a) comprises positioning a plurality of the manufacturing pieces to sequentially feed to a lower position on the gravity feed rack and wherein (b) comprises sensing at a position higher than the lower position on the gravity feed rack (Col. 36, lines 43-61).

Referring to claim 13, Jones teaches the system of Claim 11 wherein the sensor is positioned to sense at a location along the gravity feed rack such that the lack of the

Art Unit: 2125

manufacturing piece is sensed while another manufacturing piece is present below the location (Col. 36, lines 43-61).

9. Claims 1, 3, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,805,454 to Valerino.

Referring to claim 1, Valerino teaches a method for automated replenishment notification for manufacturing pieces, the method comprising:

- (a) positioning manufacturing pieces on a gravity feed rack (Col. 11, line 43);
- (b) sensing a removal of the manufacturing pieces (Col. 11, lines 49-54); and
- (c) electronically notifying in response to (b) (Col. 11, lines 49-54).

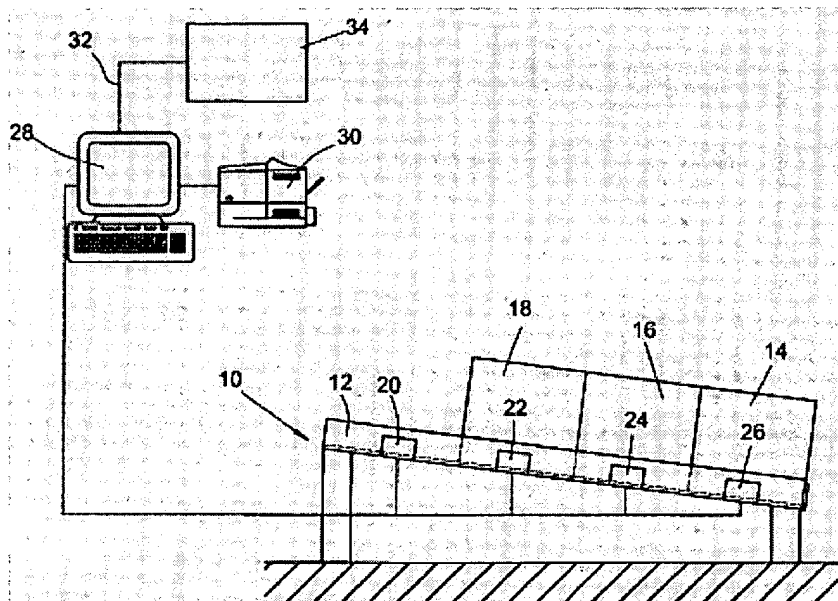
Referring to claim 3, Valerino teaches the method of Claim 1 wherein (b) comprises sensing when a position along the gravity feed rack is free of manufacturing pieces (Col. 11, lines 49-54, the rack is empty).

Referring to claim 10, Valerino teaches the method of Claim 1 wherein (a) comprises positioning a plurality of the manufacturing pieces to sequentially feed to a lower position on the gravity feed rack and wherein (b) comprises sensing at a position higher than the lower position on the gravity feed rack (Col. 11, lines 49-54, the whole rack is sensed as empty, not just the end of the column of the rack).

10. Claims 1, 2, 3, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by D.E. Pat. No. 10041398 to Wilbert.

Referring to claim 1, Wilbert teaches a method and system for automated replenishment notification for manufacturing pieces (Abstract), comprising:

- (a) positioning manufacturing pieces on a gravity feed rack (components in bin elements 18, 16, 14);
- (b) sensing a removal of the manufacturing pieces (elements 20, 24, 26); and
- (c) electronically notifying in response to (b) (Abstract).



Referring to claim 2, Wilbert teaches the method and system of Claim 1 wherein (a) comprises positioning a plurality of kanbans (elements 18, 16, 14) each having a plurality of manufacturing pieces and wherein (b) comprises sensing removal of a kanban (Abstract).

Referring to claim 3, Wilbert teaches the method of Claim 1 wherein (b) comprises sensing when a position along the gravity feed rack is free of manufacturing pieces (Abstract and element 20).

Referring to claim 10, Wilbert teaches the method of Claim 1 wherein (a) comprises positioning a plurality of the manufacturing pieces to sequentially feed to a lower position on the

Art Unit: 2125

gravity feed rack (See figure above) and wherein (b) comprises sensing at a position higher than the lower position on the gravity feed rack (See figure above, for example, sensor 24 is at a higher position than sensor 26).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 11, 13, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 5,193,065 to Guerindon.

Referring to claims 11, 17, and 20, Wilbert teaches a method and system for automated replenishment notification for manufacturing pieces (Abstract), comprising: (a) positioning manufacturing pieces on a gravity feed rack (components in bin elements 18, 16, 14); (b) sensing a removal of the manufacturing pieces (elements 20, 24, 26); and (c) electronically notifying in response to (b) (Abstract).

Referring to claims 13, Wilbert teaches a system of Claim 11, wherein the sensor is positioned to sense at a location along the gravity feed rack such that the lack of the manufacturing piece is sensed while another manufacturing piece is present below the location (See the figure).

Referring to claims 11, 17, and 20, Wilbert shows a gravity feed rack with sensors adjacent thereto (see the figure above). Wilbert clearly teaches the computer 28 generates a replenishment notification signal in response to a sensor detecting a drop in the number of supply

Art Unit: 2125

bins at the workstation (Abstract and figure). Wilbert clearly teaches that the bins are component type specific (Abstract), and shows at least three bins (figure). Wilbert clearly teaches generating a demand (i.e., order) in the form of a demand counter for a component when supply bins drops are sensed.

Referring to claims 17 and 20, Wilber teaches all the limitations set forth above, however, Wilbert fails to teach plural racks and the computer generates the orders, independently, for the respective types of components.

Referring to claims 11, 17, and 20, Wilbert teaches all the limitations set forth above, however, Wilbert fails to teach the computer communicates notification or orders to another processor.

However, referring to claims 17 and 20, Guerindon teaches analogous art, wherein Guerindon teaches plural racks (Col. 3, lines 63-68). The examiner respectfully submits that duplicating a part for a multiple effect is a clearly a modification considered to be well within the level of ordinary skill in the art - In re Harza, 274 F.2d 669,671,124 USPQ 378, 380 (CCPA 1960). Furthermore, Guerindon teaches that a computer generates orders, independently, for respective types of components, where the racks that have said components need to be replenished (Col. 6, lines 24-42; See for example, examples 2 and 3 in Col. 9, line 65 – Col. 10, line 56). The claims, as such, do not require that the racks be limited to only one type of component.

Referring to claims 11, 17, and 20, Guerindon teaches that a computer communicates the notification or the orders to another processor (Fig. 2, elements 220 and 230).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert with the teachings of Guerindon. One of ordinary skill in the art would have been motivated to combine these references because Guerindon teaches an Automated Storage and Retrieval System that consists of racks and loads material into specified locations within the racks and retrieves material from the racks when needed, thus functioning as an intelligent storage unit (Col. 3, lines 60-68). Furthermore, Guerindon teaches material replenishment methods that are determined by the type classification of the material and the material usage (Col. 5, lines 43-46). Further still, Guerindon teaches a system that can adapt quickly in response to changes in the manufacturing environment, thus insuring that material is delivered to the point of use in a JIT manner, resulting in a low material inventory (Col. 11, lines 34-38).

12. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert as applied to claims 1, 2, 3, and 10 above, and further in view of U.S. Pat. No. 5,193,065 to Guerindon.

Referring to claim 6, Wilbert teaches automatically sending an order for more manufacturing pieces and sending a copy of the order to a printer (Abstract).

Referring to claim 4, Wilbert teaches all the limitations set forth above, however, Wilbert fails to teach sensing with a mechanical switch.

Referring to claim 6, Wilbert teaches all the limitations set forth above, however, Wilbert fails to teach sending a copy of the order to *at least one of*: a purchaser, a manufacturing supervisor and a warehouse person.

Art Unit: 2125

However, referring to claim 4, Guerindon teaches analogous art, wherein sensing the removal of manufacturing pieces comprises sensing with a mechanical switch (Col. 5, lines 59-61).

Referring to claim 6, Guerindon teaches automatically sending an order for more manufacturing pieces; further comprising: (d) sending a copy of the order to *at least one of*: a purchaser, a manufacturing supervisor and a warehouse person (Col. 5, lines 9-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert with the teachings of Guerindon. One of ordinary skill in the art would have been motivated to combine these references because Guerindon teaches material replenishment methods that are determined by the type classification of the material and the material usage (Col. 5, lines 43-46), wherein the method can adapt quickly in response to changes in the manufacturing environment, thus insuring that material is delivered to the point of use in a JIT manner, resulting in a low material inventory (Col. 11, lines 34-38).

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert as applied to claims 1, 2, 3, and 10 above, and further in view of U.S. Pat. No. 6,341,271 to Salvo (supplied by applicant). Claims 15 and 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 5,193,065 to Guerindon, as applied to claims 11, 13, 17, and 20 above, and further in view of No. 6,341,271 to Salvo (supplied by applicant). Claim 22 is rejected under 35 U.S.C. 103(a) as

being unpatentable over U.S. Pat. No. 4,998,206 to Jones as applied to claims 1, 4, 7-11, 13, 21 and 24 above, and further in view of U.S. Pat. No. 6,341,271 to Salvo (supplied by applicant).

Referring to claims 5, 15, 18, and 22, Wilbert or Wilbert/Guerindon or Jones teaches all the limitations disclosed above, however, Wilbert or Wilbert/Guerindon or Jones fails to teach sending first and second e-mails, respectively, to first and second suppliers, respectively, the first supplier different than the second supplier, (d) and (e) performed without user activation of the sending.

However, referring to claims 5, 15, 18, and 22, Salvo teaches analogous art, wherein order are placed automatically for suppliers by sending e-mails, respectively, to suppliers, respectively, the suppliers being different, (d) and (e) performed without user activation of the sending (Abstract, lines 10-12; Col. 15, lines 23-25; Col. 16, lines 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert or Wilbert/Guerindon or Jones with the teachings of Salvo. One of ordinary skill in the art would have been motivated to combine these references because Salvo teaches a network based inventory management and vendor-managed inventory system and method wherein information concerning inventory amounts and inventory ordering are provided to a manufacturing site and an inventory vendor, thereby permitting monitoring and determining, in real-time, of the inventory status of receptacles, along with automatic ordering of inventory to replenish the receptacles at a low price and purchasing of the inventory at a lowest price (Col. 3, lines 42-62; Col. 2, lines 57-61). Salvo provides numerous advantages of the system, such as, historical analysis of inventory use, evaluation of inventory use, automation and suggestions for a vendor's manufacturing schedule, prediction of

Art Unit: 2125

future inventory usage, lot identification, forecasting based on trends and economic indicators, automatic notification of inventory occurrences that require attention, and automatic inventory ordering (Col. 3, lines 42-62).

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 5,193,065 to Guerindon, as applied to claim 11 above, and further in view of U.S. Pat. No. 6,370,447 to Miyazaki.

Referring to claim 12, Wilbert/Guerindon teach all the limitations set forth above, however, fail to teach that the gravity feed rack comprises a plurality of rollers, the sensor positioned between two to of the plurality of rollers.

However, referring to claim 12, Miyazaki teaches analogous art, wherein the gravity feed rack comprises a plurality of rollers, the sensor positioned between two to of the plurality of rollers (Col. 4, lines 44-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert/Guerindon with the teachings of Miyazaki. One of ordinary skill in the art would have been motivated to combine these references because Miyazaki teaches the sensors can be arranged as such, to detect the presence or absence of materials being conveyed (Col. 4, lines 44-58). Furthermore, Miyazaki teaches the arrangement of the system, as such, provides for a highly efficient conveyance control system wherein a multitude of sensors for detecting the presences or absence of the goods are provided so as to correspond to the respective motorized rollers (Col. 1, lines 10-48).

Art Unit: 2125

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 5,193,065 to Guerindon, as applied to claim 11 above, and further in view of U.S. Pat. No. 6,735,498 to Hertz.

Referring to claim 14, Wilbert/Guerindon teach all the limitations set forth above, however, fail to teach that the sensor is a spring activated mechanical switch.

However, referring to claim 14, Hertz teaches analogous art, wherein a sensor for replenishment notification is a spring activated mechanical switch (See fig. 9; Col. 13, lines 23-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert/Guerindon with the teachings of Hertz. One of ordinary skill in the art would have been motivated to combine these references because Hertz teaches an automated inventory monitoring system with a spring activated mechanical switch that has the ability to monitor a rack and identify when the rack is filled and when the rack is empty (Col. 3, lines 34-39), thus allowing for notification for service the rack (Col. 9, line 49 – Col. 10, line 61).

16. Claims 11, 15, 16, 21-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 6,813,540 to Scotti. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 5,193,065 to Guerindon, as applied to claims 11, 13, 17, and 20 above, and further in view of U.S. Pat. No. 6,813,540 to Scotti. Claims 5-9 are rejected under 35

Art Unit: 2125

U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert, as applied to claims 1, 2, 3, and 10 above, and further in view of U.S. Pat. No. 6,813,540 to Scotti.

Referring to claims 11, 21, and 25, Wilbert teaches a method and system for automated replenishment notification for manufacturing pieces (Abstract), comprising: (a) positioning manufacturing pieces on a gravity feed rack (components in bin elements 18, 16, 14); (b) sensing a removal of the manufacturing pieces (elements 20, 24, 26); and (c) electronically notifying in response to (b) (Abstract).

Referring to claims 11, 21, and 25, Wilbert shows a gravity feed rack with sensors adjacent thereto (see the figure above). Wilbert clearly teaches the computer 28 generates a replenishment notification signal in response to a sensor detecting a drop in the number of supply bins at the workstation (Abstract and figure). Wilbert clearly teaches that the bins are component type specific (Abstract), and shows at least three bins (figure). Wilbert clearly teaches generating a demand (i.e., order) in the form of a demand counter for a component when supply bins drops are sensed.

Referring to claims 11, 21, and 25, Wilbert teaches all the limitations set forth above, however, Wilbert fails to teach the computer communicates notification to another processor, and the computer is operable to sense a lack of replacement of the manufacturing piece after a time period in response to the sensor and operable to generate an additional notification in response to the lack of replacement.

However, referring to claims 11, 21, and 25, Scotti teaches analogous art, wherein a computer communicates replenishment notification to another processor (Col. 8, lines 17-34), and the computer is operable to sense a lack of replacement of the manufacturing piece after a

Art Unit: 2125

time period in response to the sensor and operable to generate an additional notification in response to the lack of replacement (Col. 7, lines 29-64).

Referring to claims 5-9, 15, 16, 19, 22-24, Scotti teaches replenishment notification via email, sending a copy of an order to a supplier, and sensing replenishment requirements periodically (Col. 6, lines 1-17; Col. 7, lines 52-55; Col. 8, lines 17-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert with the teachings of Scotti. One of ordinary skill in the art would have been motivated to combine these references because Scotti teaches a system and method that provides for managing material into an assembly area based on actual demand of the material, such that as the need for specific parts or materials for the assembly process increased or decreases, so will the number or amount of material delivered by the supplier (Col. 8, lines 10-43).

17. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over D.E. Pat. No. 10041398 to Wilbert in view of U.S. Pat. No. 6,813,540 to Scotti, as applied to claim 25 above, and further in view of D.E. Pat. No. 10041398 to Wilbert and further in view of U.S. Pat. No. 6,813,540 to Scotti.

Referring to claim 26, Wilbert teaches the rack comprises a gravity feed rack (See figure above), and Wilber teaches a copy of the count of the demand counter is sent to a printer.

Referring to claim 26, Wilbert teaches all the limitations set forth above, however, Wilbert fails to teach a person at the printer is a purchaser. The examiner respectfully submits that the copy, in the claims, is not even required to be a copy of the order.

Referring to claim 26, Wilbert teaches all the limitations set forth above, however, Wilbert fails to teach the notification is an order to a supplier and the additional notification is a reminder to the supplier.

However, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to have a purchaser get the copy at the printer so the purchaser would not have to remember how many bins to purchase.

However, Scotti teaches analogous art, wherein the notification is an order to a supplier and the additional notification is a reminder to the supplier. Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Wilbert with the teachings of Scotti. One of ordinary skill in the art would have been motivated to combine these references because Scotti teaches a system and method that provides for managing material into an assembly area based on actual demand of the material, such that as the need for specific parts or materials for the assembly process increased or decreases, so will the number or amount of material delivered by the supplier (Col. 8, lines 10-43).

Conclusion

18. The prior art or art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents or publications are cited to further show the state of the art with respect to replenishment notification.

U.S. Pat. No. 5,796,616 to Hamuro.

U.S. Pat. No. 4,542,808 to Lloyd.

Art Unit: 2125

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754.

The examiner can normally be reached on 9:30am-6:00pm, M-F.

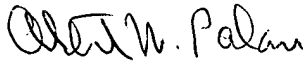
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPS

Sean P. Shechtman

December 14, 2004

 12-27-04
ALBERT W. PALADINI
PRIMARY EXAMINER